

ERRATA

A PREDESIGN REPORT ON MARINE WASTE DISPOSAL
VOLUME II DATA SUPPLEMENT

CITY AND COUNTY OF SAN FRANCISCO

SEPTEMBER 1971

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CITY AND COUNTY OF SAN FRANCISCO

September 1971

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The following changes are made to data sheets of Section II,
Ecological Investigations, Predesign Report on Marine Wast Disposal,
Volume II Data Supplement.

BIOASSAY DATA

TYPE In-Situ Toxicity OBSERVER J. Hawke DURATION 4-8 days

SUBJECT WATER PIER 35
ORGANISM THREE SPINE STICKLEBACK EFFLUENT SOURCE PIER 39

GASTEROSTEUS ACULEATUS



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BIOASSAY DATA

TYPE STATIC OBSERVER TRITICO DURATION 4 DAY

SUBJECT
 ORGANISM SHINER PERCH EFFLUENT S.F. COMPOSITE WATER SOURCE FORT BAKER

CYMATOGASTER AGGREGATA

EXPERIMENT NUMBER	RATIO OF EFFLUENT: WATER	VOLUME	SURVIVORS AT TIME INDICATED (IN DAYS)								
			0	1	2	3	4				
1 7/25/70	control	5 liter	10	-	9	-	8				
	1:50		10	-	8	-	6				
	1:10		10	-	9	-	9				
	1:5		10	-	10	-	10				
2 7/25/70	control	5 liter	20	-	18	-	14				
	1:20		20	-	19	-	14				s - Salinity adjusted
	1:10		20	-	18	-	10				
	1:5		20	-	16	-	11				p - Salinity not adjusted
3 7/30/70	control	5 liter	15	-	15	-	12				
	1:20		15	-	15	-	14				
	1:10		15	-	14	-	14				
	1:5		15	-	14	-	13				
4 9/7/70	control	5 liter	7	7	7	-	5				
	1:5		7	6	5	-	4				
	1:2s		7	6	4	-	2				
	1:2p		7	6	6	-	3				
5 8/15/70	control	5 liter	10	-	10	-	10				
	1:2s		10	-	10	-	1				
	1:2p		10	-	8	-	1				
	1:1s		10	-	0	-	0				
	1:lp		10	-	0	-	0				

BIOASSAY DATA

TYPE STATIC OBSERVER TRITICO DURATION 4 DAY

SUBJECT
 ORGANISM WALLEYE PERCH EFFLUENT S.F. COMPOSITE WATER SOURCE FORT BAKER

HYPERPROSOPON ARGENTEUM

EXPERIMENT NUMBER	RATIO OF EFFLUENT: WATER	VOLUME	SURVIVORS AT TIME INDICATED (IN DAYS)							
			0	1	2	3	4			
6 9/10/70	control	5 liter	2	2	2	-	2			
	1:5		2	2	2	-	1			
	1:5		2	1	1	-	0			
	1:5		2	2	2	-	2			
7 7/11/70	control	5 liter	6	-	6	-	6			
	1:100		6	-	6	-	6			
	1:50		6	-	6	-	5			
8 7/26/70	control	5 liter	15	-	15	-	15			
	1:100		15	-	15	-	15			
	1:50		15	-	15	-	15			
9 8/12/70	control	5 liter	6	-	-	-	5			
	1:20		6	-	-	-	5			
	1:10		6	-	-	-	5			
	1:5		6	-	-	-	5			

BIOASSAY DATA

TYPE STATIC OBSERVER TRITICO DURATION 4 DAY

SUBJECT
ORGANISM SAND DAB EFFLUENT S.F. COMPOSITE WATER SOURCE FORT BAKER

CITHARICHTHYS SORDIDUS

EXPERIMENT NUMBER	RATIO OF EFFLUENT: WATER	VOLUME	SURVIVORS AT TIME INDICATED (IN DAYS)						
			0	1	2	3	4		
<u>10</u> 8/19/70	control	5 liter	6	-	6	-	6		
	1:2s		6	-	6	-	6		
	1/2		6	-	6	-	6		
	1/ls		6	-	6	-	5		
	1/1		6	-	5	-	2		
<u>11</u> 7/19/70	control	5 liter	7	-	7	-	7		
	1/20		7	-	7	-	7		
	1/10		7	-	6 ^a	-	6 ^a		
	1/5		7	-	6 ^a	-	6 ^a		
<u>12</u> 7/19/70	control	5 liter	13	-	13	-	13		
	1/20		13	-	13	-	12		
	1/10		13	-	13	-	10		
	1/5		13	-	13	-	12		
<u>13</u> 7/19/70	control	5 liter	5	5	5	-	5		
	1/ls a		5	5	5	-	5		
	1/ls b		5	5	4	-	4		
	1/1 a		5	5	5	-	5		
	1/1 b		5	5	5	-	5		

^aOne fish jumped out of tank.

BIOASSAY DATA

TYPE STATIC OBSERVER TRITICO DURATION 4 DAY

SUBJECT STICKLEBACK EFFLUENT S.F. COMPOSITE WATER SOURCE FORT BAKER
ORGANISM

GASTEROSTEUS ACULEATUS

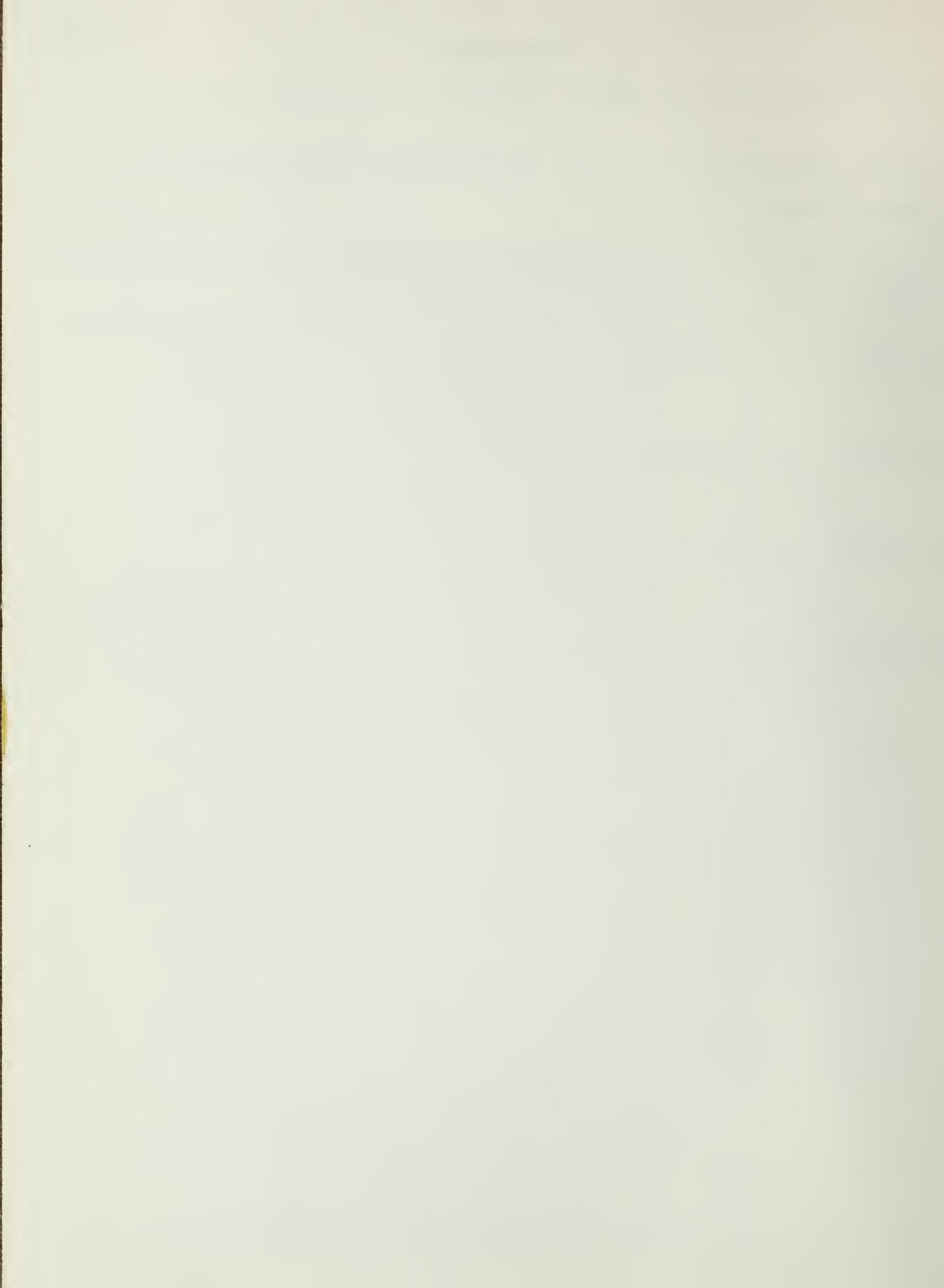
BIOASSAY DATA

TYPE STATIC OBSERVER TRITICO DURATION 4 DAY

SUBJECT HERMIT CRAB S.F. COMPOSITE WATER SOURCE FORT BAKER
 ORGANISM EFFLUENT

PAGURUS SAMUELIS

EXPERIMENT NUMBER	RATIO OF EFFLUENT: WATER	VOLUME	SURVIVORS AT TIME INDICATED (IN DAYS)						
			0	1	2	3	4		
<u>24</u> 7/13/70	control	5 liter	7	-	7	-	7		
	1/100		7	-	7	-	7		
	1/50		7	-	7	-	7		
<u>25</u> 7/13/70	control	5 liter	7	-	7	-	7		
	1/100		7	-	7	-	7		
	1/50		7	-	7	-	7		
<u>26</u> 7/13/70	control	5 liter	7	-	7	-	6		
	1/100		7	-	7	-	7		
	1/50		7	-	7	-	6		
<u>27</u> 8/13/70	control	5 liter	4	4	4	4	4		
	1/20		4	4	4	4	4		
	1/10		4	4	4	4	3		
	1/5		4	4	4	4	4		



BIOASSAY DATA

TYPE STATIC OBSERVER TRITICO DURATION 4 DAY

SUBJECT
 ORGANISM SHORE CRAB EFFLUENT S.F. COMPOSITE WATER SOURCE FORT BAKER

EMIGRAPSUS OREGONENSIS

EXPERIMENT NUMBER	RATIO OF EFFLUENT: WATER	VOLUME	SURVIVORS AT TIME INDICATED (IN DAYS)						
			0	1	2	3	4		
<u>29</u> 7/12/70	control	5 liter	30	0	30	-	25 ^b		
	1/100		30	-	29 ^a	-	27 ^c		
	1/50		30	-	30	-	28 ^b		
<u>30</u> 7/19/70	control	5 liter	30	-	30	-	30		
	1/100		30	-	28	-	28		
	1/50		30	-	29	-	29		
<u>31</u> 7/19/70	control	5 liter	30	-	28 ^b	-	25 ^d		
	1/100		30	-	26 ^b	-	22 ^d		
	1/50		30	-	29 ^b	-	27 ^b		
<u>32</u> 7/26/70	control	30 liter	30	-	29	-	28		
	1/20		30	-	30	-	29		
	1/10		30	-	29	-	29		

^aAnimals probably overcrowded. Fighting (possibly lethal) occurred.

^bAnimals escaped - no test mortalities.

^cOne 48-hour mortality. Others escaped.

^dOne animal dead. Others escaped.

BIOASSAY DATA

TYPE STATIC OBSERVER TRITICO DURATION 4 DAY

EMERITA ANALOGA

^aMortality possibly due to predation.

BIOASSAY DATA

TYPE STATIC OBSERVER TRITICO DURATION 4 DAY

SUBJECT
 ORGANISM BAY SHRIMP EFFLUENT S.F. COMPOSITE WATER SOURCE FORT BAKER

CRAGO SP.

EXPERIMENT NUMBER	RATIO OF EFFLUENT: WATER	VOLUME	SURVIVORS AT TIME INDICATED (IN DAYS)								
			0	1	2	3	4				
35 7/27/70	control	5 liter	10	-	10	-	8				
	1/100		10	-	10	-	8				
	1/50		10	-	10	-	7				
	1/10		10	-	9	-	7				
	1/5		10	-	9	-	7				
	1/2s		10	-	8	-	7				s - Salinity adjusted
	1/2		10	-	9	-	9				
	1/1s		10	-	5	-	3				
	1/1		10	-	4	-	3				
	1/0s		10	-	0	-	0				
	1/0		10	-	0	-	0				



BIOASSAY DATA

TYPE STATIC OBSERVER TRITICO DURATION 4 DAY

SUBJECT ORGANISM GHOST SHRIMP EFFLUENT S.F. COMPOSITE WATER SOURCE FORT BAKER

CALLIANASSA CALIFORNIENSIS

EXPERIMENT NUMBER	RATIO OF EFFLUENT: WATER	VOLUME	SURVIVORS AT TIME INDICATED (IN DAYS)								
			0	1	2	3	4				
<u>37</u> 8/7/70	control	5 liter	6	-	6	-	6				
	1/100		6	-	6	-	5 ^a				
	1/50		6	-	6	-	5 ^a				

^aOnly hard parts of dead shrimp found in tank.



BIOASSAY DATA

TYPE STATIC OBSERVER TRITICO DURATION 4 DAY

SUBJECT TURBAN SNAIL EFFLUENT S.F. COMPOSITE WATER SOURCE FORT BAKER
ORGANISM

TEGULA FUNEBRALIS

EXPERIMENT NUMBER	RATIO OF EFFLUENT: WATER	VOLUME	SURVIVORS AT TIME INDICATED (IN DAYS)						
			0	1	2	3	4		
28 8/16/70	control	5 liter	18	-	18	-	18		
	1/20		18	-	18	-	18		
	1/10		18	-	18	-	18		
	1/5		18	-	18	-	18		
7/19/70	control	20 liter	24	-	-	-	23 ^a		
	1:100		25	-	-	-	24 ^a		
	1:50		25	-	-	-	23 ^a		

^aSome animals escaped. No test mortality

BIOASSAY DATA

TYPE STATIC OBSERVER TRITICO DURATION 4 DAY

SUBJECT
 ORGANISM BENT-NOSED CLAM EFFLUENT S.F. COMPOSITE WATER SOURCE FORT BAKER

MACOMA NASUTA

EXPERIMENT NUMBER	RATIO OF EFFLUENT: WATER	VOLUME	SURVIVORS AT TIME INDICATED (IN DAYS)						
			0	1	2	3	4		
39 8/7/70	control	5 liter	11	-	11	-	11		
	1/100		11	-	11	-	11		
	1/50		11	-	11	-	11		
	1/20		11	-	11	-	11		
	1/10		11	-	11	-	11		
	1/5		11	-	11	-	10		
	1/2s		11	-	11	-	10		
	1/2		11	-	11	-	11		
	1/1s		11	-	11	-	11		
	1/1		11	-	11	-	9		
	1/0s		11	-	0	-	0		
	1/0		11	-	0	-	0		

s - Salinity adjusted

BIOASSAY DATA

TYPE STATIC OBSERVER TRITICO DURATION 4 DAY

SUBJECT
 ORGANISM RIBBED HORSE MUSSEL EFFLUENT S.F. COMPOSITE WATER SOURCE FORT BAKER

VOLCELLA DEMISSA

EXPERIMENT NUMBER	RATIO OF EFFLUENT: WATER	VOLUME	SURVIVORS AT TIME INDICATED (IN DAYS)									
			0	1	2	3	4					
40 8/7/70	control	10 liter	10	10	10	-	10					s - Salinity adjusted p - Salinity not adjusted
	1/20		10	10	10	-	10					
	1/10		10	10	10	-	10					
	1/5		10	10	10	-	10					
	1s/2		10	10	10	-	10					
	1p/2		10	10	10	-	10					
	1s/1		10	10	10	-	10					
	1p/1		10	10	10	-	10					
	control		10	10	10	-	10					
41 7/26/70	control	10 liter	30	-	30	-	30					
	1:100		30	-	30	-	30					
	1:50		30	-	30	-	30					

